

What is claimed is:

1. A sample retainer for X-ray fluorescence analysis for use in pretreating a liquid sample and then in X-ray fluorescence analysis of contents of such liquid sample, which retainer comprises
  - 5 a ring-shaped pedestal;
  - a hydrophobic film of a thickness smaller than 10  $\mu\text{m}$  and having a peripheral portion held by the pedestal and also having a transmitting portion for passage of X-rays therethrough; and
  - a sheet-like liquid absorbent element applied to the transmitting portion of the hydrophobic film and having a thickness
  - 10 within the range of 1 to 100  $\mu\text{m}$ ;wherein a liquid sample is adapted to be dispensed dropwise onto and dried on the liquid absorbent element with contents of the liquid sample consequently retained thereon.
- 15 2. The sample retainer for X-ray fluorescence analysis as claimed in Claim 1;
  - wherein the hydrophobic film is made of a material selected from the group consisting of polyester, polypropylene and polyimide; and
  - 20 wherein the liquid absorption element is made of paper.
3. The sample retainer for X-ray fluorescence analysis as claimed in Claim 2;
  - wherein the liquid absorption element is made of paper containing a porous powder.
- 25 4. An X-ray fluorescence analyzing method utilizing the sample retainer for X-ray fluorescence analysis as defined in Claim 1, which method comprises:
  - causing a liquid sample to be dispensed dropwise onto and dried on a liquid absorption element with contents of the liquid sample

consequently retained thereon;

irradiating an area of the liquid absorption element with primary X-rays, to thereby measure an intensity of secondary X-rays generated.

- 5 5. An X-ray fluorescence spectrometer utilizing the sample retainer for the X-ray fluorescence analysis as defined in Claim 1, which spectrometer comprises:

a source of X-rays for irradiating an area of a liquid absorption element, where a liquid sample is dispensed dropwise onto and dried  
10 on the liquid absorption element with contents of the liquid sample consequently retained thereon; and

a detecting device for measuring the intensity of the secondary X-rays emitted from that area of the liquid absorption element.